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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/961,315	09/25/2001	Klaus Schadhauser	00 P 18897	5774

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OSRAM SYLVANIA INC.  
Attn: Carlo S. Bessone  
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Danvers, MA 01923

EXAMINER

TERESINSKI, JOHN

ART UNIT	PAPER NUMBER
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2858

DATE MAILED: 11/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/961,315

Applicant(s)

SCHADHAUSER, KLAUS

Examiner

John Teresinski

Art Unit

2858

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,075,599 to Overgoor et al. in view of U.S. Patent No. 6,008,593 to Ribarich.

Regarding claim 1, Overgoor et al. discloses an electronic operating device for operating one or more gas discharge lamps (column 6 lines 5), an AC voltage generator which feeds AC voltage into a load circuit (Fig. 1 elements A and B), a load circuit which contains at least one lamp (column 1 lines 12-13) and is designed such that the phase of the current which flows in the load circuit is determined with reference to AC voltage (column 1 lines 28-39), a device for measuring the phase of the current which flows in the load current with reference to the applied AC voltage (column 1 lines 18-22). Overgoor et al. does not disclose lamp filaments, determining current phase essentially by at least one component which conducts a current which flows through the filaments, or wherein the operating device is disconnected as soon as phase measurement device detects a phase angle which violates a prescribed limiting value. Ribarich discloses an electronic operating device for operating one or more lamps (column 3 lines 32-38) comprising lamp filaments (column 5 lines 55-57), determining current phase essentially by at least one component which conducts a current which flows through the filaments (column 5 lines

Art Unit: 2858

47-60), and disconnecting source power as soon as phase measurement device detects a phase angle which violates a prescribed limiting value (column 6 lines 8-18). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include current phase determination and disconnection of source power as taught by Ribarich into Overgoor et al. for the purpose of providing a potential free evaluation of the current in a lamp.

Regarding claim 3, Overgoor et al. discloses a capacitor whose current flows through a lamp (column 4 lines 4-10, Fig. 2 elements LA, C1).

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,075,599 to Overgoor et al. and U.S. Patent No. 6,008,593 to Ribarich as applied to claim 1 above, and further in view of U.S. Patent No. 5,181,026 to Granville.

Regarding claim 2, Overgoor et al. in view of Ribarich do not disclose measuring time between the zero-crossing AC voltage supplied by the AC voltage generator and zero-crossing of the load circuit current. Granville discloses power transmission monitoring circuit with gas discharge lamps including measuring time between the zero-crossing AC voltage supplied by the AC voltage generator and zero-crossing of the load circuit current (column 3 lines 41-50). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include zero-crossing measurements as taught by Granville into Overgoor et al. in view of Ribarich for the purpose of calculating current phase angle (column 3 lines 59-68).

Art Unit: 2858

Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,075,599 to Overgoor et al. and U.S. Patent No. 6,008,593 to Ribarich as applied to claim 1 above, and further in view of U.S. Patent No. 5,925,990 to Crouse et al..

Regarding claim 4, Overgoor et al. in view of Ribarich does not disclose an optocoupler for triggering disconnection of the operating device. Crouse et al. discloses an optocoupler for triggering disconnection of the operating device at the input of the AC voltage generator to filaments (column 7 lines 55-64). It would have been obvious to one of ordinary skill in the art to include an optocoupler as taught by Crouse et al. into Overgoor et al. in view of Ribarich for the purpose of improving efficiency of the electronic operating device (column 7 lines 60-63).

Regarding claim 5, Overgoor et al. does not disclose a disconnection logic circuit which contains at least one trigger and a timing element which supplies a signal which disconnects the operating device via the input of the AC voltage generator. Ribarich discloses disconnection logic circuit which contains at least one trigger and a timing element which supplies a signal which disconnects the operating device via the input of the AC voltage generator (column 6 lines 20-26). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a disconnection logic circuit as taught by Ribarich into Overgoor et al. and Crouse et al. for the purpose of providing automatic restarting of the electronic operating device (column 6 lines 21-23).

Regarding claim 6, Overgoor et al. in view of Ribarich does not disclose an input to the disconnection circuit connected to the output of the optocoupler. Crouse et al. discloses input to the disconnection circuit/microcontroller connected to the output of the optocoupler (column 7 lines 58-60). It would have been obvious to one of ordinary skill in the art at the time the

Art Unit: 2858

invention was made to include connection of the optocoupler to the disconnection circuit as taught by Crouse et al. into Overgoor et al. in view of Ribarich for the purpose of identifying condition of gas discharge lamp (column 8 lines 5-10).

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to methods and devices in general for gas discharge lamp monitoring and control:

U.S. Patent No. 6,414,400 to Scott et al. discloses a power conversion system to accommodate a lamp.

U.S. Patent No. 6,211,623 to Wilhelm et al. discloses a gas discharge lamp controller integrated circuit.

U.S. Patent No. 4,277,728 to Stevens discloses a power supply for a discharge lamp.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Teresinski whose telephone number is (703) 305-4746. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, N. Le can be reached on (703) 308-0750. The fax phone numbers for the

Art Unit: 2858

organization where this application or proceeding is assigned are (703) 872 9319 for regular communications and (703) 872 9318 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

ST  
JT

November 3, 2002

*Christine K Oda*  
**Christine Oda**  
**Primary Examiner**